

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P243138

Luminaire Tested: **S122DR-H1005D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243138  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-48)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DR-H1005D935-X4F0-XX-UDD-F-W  
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

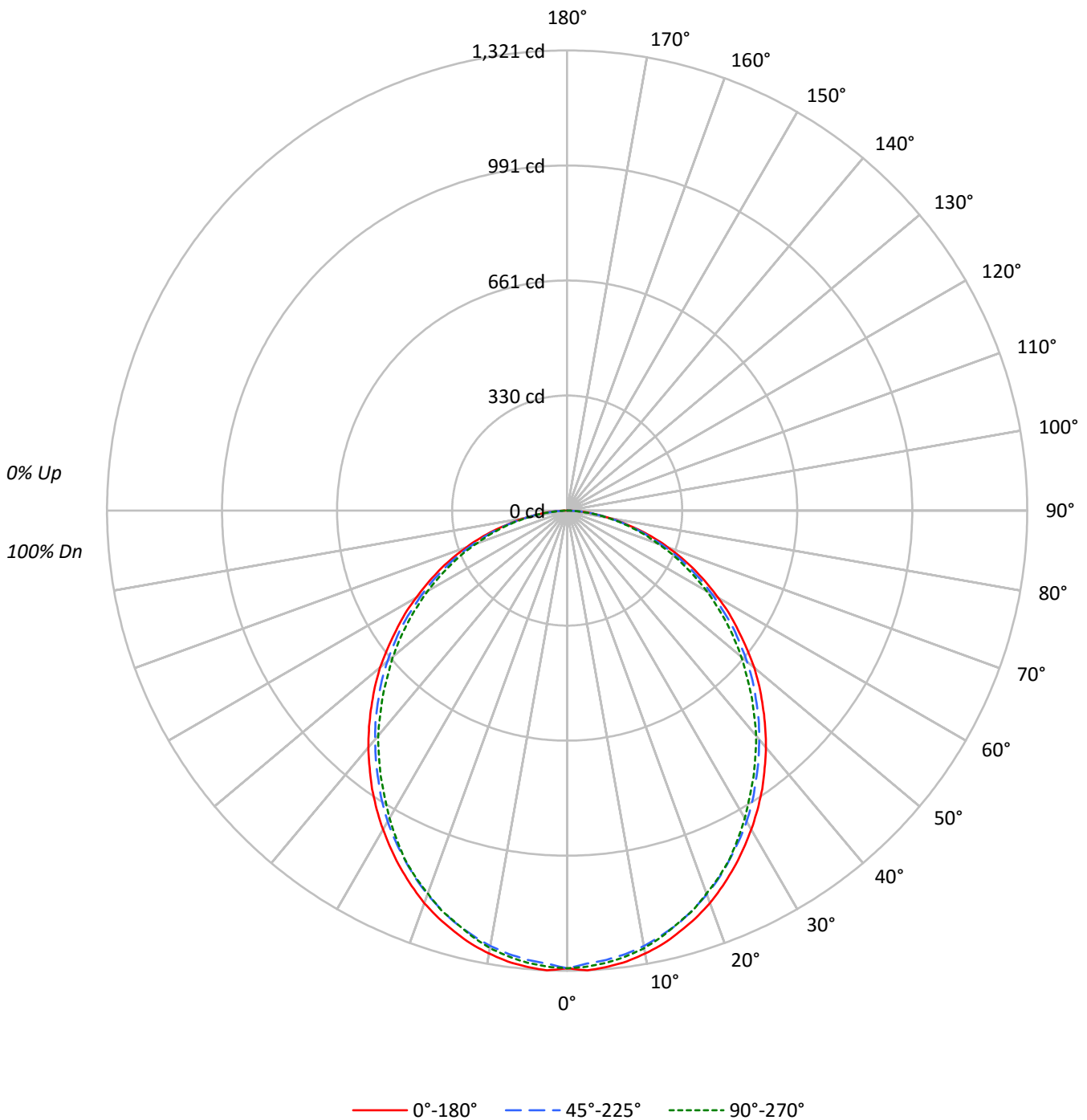
Lumens per Lamp: N/A  
Luminaire Lumens: 3343.7 lumens  
Efficiency: N/A  
Efficacy: 88.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29  
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 37.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	33	45	38	33	44	38	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	25029	25029	25029
5°	25149	24755	24916
10°	24970	24548	24666
15°	24671	24218	24192
20°	24304	23763	23714
25°	23799	23213	23188
30°	23255	22667	22428
35°	22697	21967	21683
40°	22073	21322	20989
45°	21402	20650	20128
50°	20779	19955	19344
55°	19909	19224	18501
60°	19055	18316	17623
65°	18231	17357	16595
70°	17131	16256	15443
75°	15595	14977	14263
80°	13547	13152	12625
85°	11649	10315	9529



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	123.7	3.7
10°-20°	348.3	10.4
20°-30°	512.1	15.3
30°-40°	594.5	17.8
40°-50°	593.8	17.8
50°-60°	517.1	15.5
60°-70°	382.5	11.4
70°-80°	215.6	6.4
80°-90°	56.2	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	984.0	29.4
0°-40°	1578.6	47.2
0°-60°	2689.5	80.4
0°-90°	3343.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3343.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1314	1314	1314	1314	1314	
5°	1315	1309	1295	1306	1303	125
15°	1251	1245	1228	1233	1227	353
25°	1132	1123	1104	1103	1103	521
35°	976	965	945	936	932	610
45°	794	786	767	754	747	614
55°	600	595	579	563	557	537
65°	404	398	385	373	368	400
75°	212	211	204	196	194	225
85°	53	51	47	45	44	60
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1314.0	1314.0	1314.0	1314.0	1314.0
2.5°	1321.3	1315.3	1301.9	1312.8	1310.4
5°	1315.3	1309.2	1294.7	1305.6	1303.1
7.5°	1305.6	1299.5	1283.8	1294.7	1291.0
10°	1291.0	1283.8	1269.2	1276.5	1275.3
12.5°	1274.1	1266.8	1249.9	1255.9	1253.5
15°	1251.1	1245.0	1228.1	1232.9	1226.8
17.5°	1226.8	1217.2	1201.4	1206.3	1202.6
20°	1199.0	1189.3	1172.3	1174.8	1169.9
22.5°	1166.3	1156.6	1140.9	1140.9	1138.4
25°	1132.4	1122.7	1104.5	1103.3	1103.3
27.5°	1094.8	1086.4	1068.2	1064.6	1062.1
30°	1057.3	1050.0	1030.6	1023.4	1019.7
32.5°	1017.3	1007.6	989.5	981.0	974.9
35°	976.1	965.2	944.7	936.2	932.5
37.5°	931.3	920.4	902.3	895.0	887.7
40°	887.7	878.0	857.5	846.6	844.1
42.5°	841.7	832.0	813.9	801.7	794.5
45°	794.5	786.0	766.6	754.5	747.2
47.5°	748.5	738.8	721.8	707.3	697.6
50°	701.2	691.5	673.4	656.4	652.8
52.5°	649.1	643.1	624.9	609.2	604.3
55°	599.5	594.6	578.9	563.2	557.1
57.5°	552.3	546.2	528.0	515.9	508.7
60°	500.2	496.6	480.8	467.5	462.6
62.5°	451.7	446.9	433.6	420.3	414.2
65°	404.5	398.5	385.1	373.0	368.2
67.5°	356.1	350.0	339.1	329.4	324.6
70°	307.6	302.8	291.9	283.4	277.3
72.5°	260.4	255.5	245.9	237.4	236.2
75°	211.9	210.7	203.5	196.2	193.8
77.5°	167.1	165.9	161.1	157.4	155.0
80°	123.5	123.5	119.9	116.3	115.1
82.5°	84.8	86.0	82.4	79.9	79.9
85°	53.3	50.9	47.2	44.8	43.6
87.5°	21.8	18.2	17.0	13.3	12.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)